ABSTRAK

Abdul Rosyid. (1207150). Pembelajaran Matematika Berbasis Fenomena Didaktis Melalui Pendekatan Saintifik Untuk Meningkatkan Kemampuan Komunikasi Matematis dan *Self-Confidence* Siswa SMP.

Kemampuan komunikasi matematis dan kemampuan *Self-Confidence* siswa merupakan kompetensi yang harus dimiliki siswa sekolah menengah pertama, namun kenyataan di lapangan menunjukkan bahwa kemampuan tersebut masih belum dimiliki secara optimal oleh siswa. Tujuan penelitian ini adalah untuk mengkaji secara mendalam tentang pencapaian dan peningkatan kemampuan komunikasi matematis siswa yang belajar melalui pendekatan saintifik dengan bahan ajar matematika bernuansa fenomena didaktis, ditinjau dari kategori kemampuan matematis awal (tinggi, sedang, rendah) serta kemampuan *self-confidence* siswa yang belajar melalui pendekatan saintifik dengan bahan ajar matematika bernuansa fenomena didaktis. Penelitian ini merupakan penelitian *quasi experiment* dengan desain kelompok kontrol non-ekuivalen. Pelaksanaan penelitian ini dilakukan pada siswa kelas VIII di salah satu SMP Negeri di Kota Bandung. Analisis data kuantitatif dilakukan dengan menggunakan uji perbedaan rerata dan uji Anova satu jalur. Hasil penelitian menunjukkan bahwa ditinjau dari keseluruhan dan kategori kemampuan matematis awal (KMA) siswa terdapat perbedaan pencapaian dan peningkatan kemampuan komunikasi matematis antara siswa yang belajar dengan bahan ajar matematika bernuansa fenomena didaktis melalui pendekatan saintifik dan siswa yang belajar melalui pendekatan saintifik dengan bahan ajar buku Kurikulum 2013 meskipun tidak signifikan, serta terdapat perbedaan secara signifikan pencapaian dan peningkatan kemampuan komunikasi matematis siswa yang belajar dengan bahan ajar matematika bernuansa fenomena didaktis melalui pendekatan saintifik bila dilihat dari kemampuan matematis awal siswa (KMA) siswa. Hasil penelitian juga menunjukkan bahwa terdapat perbedaan kemampuan *self-confidence* siswa antara siswa yang belajar melalui pendekatan saintifik menggunakan bahan ajar matematika bernuansa fenomena didaktis dengan siswa siswa yang belajar melalui pendekatan saintifik dengan bahan ajar buku Kurikulum 2013 meskipun tidak signifikan.

Kata kunci: Fenomena didaktis, pendekatan saintifik, kemampuan komunikasi matematis, kemampuan *self-confidence*.

ABSTRACT

Abdul Rosyid. (1207150). Learning Mathematics Based on Didactical Phenomenology through Scientific Approach to Improve Students' Mathematical Communication and Self-Confidence in Junior High School.

Students' mathematical communication and self-confidence is the competencies required of junior high school students, but the reality on the ground shows that the ability is still not optimally owned by students. The purpose of this study is to examine in depth about the achievement and improvement of students'mathematical communication that learned mathematics through scientific approach based on didactical phenomenology, in terms of categories of early mathematical ability (high, medium, low) as well as students' self-confidence that learned mathematics through scientific approach based on didactical phenomenology. This study is a quasi-experimental design with non-equivalent control group. The experiment was conducted at the eighth grade students in one of the Junior High School in Bandung. Quantitative data analysis performed using the mean difference test and one way Anova while the qualitative data analysis was done descriptively. The results showed that in terms of overall and category of early mathematical ability (KMA) students there are differences in achievement and improvement of mathematical communication skills among students who learn mathematics based on didactical phenomenology through scientific approaches and students who learn through a scientific approach with book of Curriculum 2013 although not significant, and there are significant differences in achievement and improvement of students' mathematical communication skills when viewed from the ability early mathematical students (KMA) students. The results also show that there are differences in the ability of students' self-confidence among students who learn mathematics based on didactical phenomenology through scientific approaches with students who learn through a scientific approach with book of Curriculum 2013 although not significant.

Key Words: didactical phenomenology, scientific approach, mathematical communication, self-confidence.